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CLAIMS:

What is claimed is:

1 1. A method of generating a logically merged web module
2 for a web application, comprising:
3 determining if the web application includes a
4 reference to at least one shared web module that may be
5 incorporated into a plurality of web applications;
6 identifying a location of the at least one shared
7 web module; and
8 logically merging the at least one shared web module
9 with web modules of the web application, if any, to
10 generate a logically merged web application.

1 2. The method of claim 1, further comprising:
2 loading the logically merged web application into a
3 web container.

1 3. The method of claim 1, wherein determining if the
2 web application includes a reference to at least one
3 shared web module includes determining if the web
4 application includes a shared web module designation
5 file.

1 4. The method of claim 1, wherein the web application
2 is an enterprise archive (EAR) and wherein the logically
3 merged web application is a logically merged EAR.

1 5. The method of claim 1, wherein the at least one
2 shared web module includes at least one of a web archive

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3 (WAR) file, an enterprise java bean (EJB) archive file,
4 and a resource archive (RAR) file.

1 6. The method of claim 1, wherein logically merging the
2 at least one shared web module with web modules of the
3 web application includes:

4 determining a priority associated with the at least
5 one shared web module; and

6 resolving any conflicts between shared web modules
7 in the at least one shared web module and conflicts
8 between the at least one shared web module and web
9 modules of the web application, if any.

1 7. The method of claim 1, wherein the steps of
2 determining, identifying, and logically merging are
3 performed during an initialization process of a runtime
4 environment for initializing the web application to be
5 run on a server.

1 8. The method of claim 1, wherein logically merging the
2 at least one shared web module with the web modules of
3 the web application includes using a service provider
4 interface (SPI) that provides merge logic for merging
5 different module types.

1 9. The method of claim 2, wherein the container uses one
2 or more application program interfaces (APIs) to identify
3 a path to the at least one shared web module and loads
4 the at least one shared web module when loading the
5 logically merged web application.

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1 10. The method of claim 1, wherein logically merging the
2 at least one shared web module with web modules of the
3 web application includes at least one of relinking
4 references to the at least one shared web module in the
5 web modules of the web application, extrapolating policy
6 information for the at least one shared web module from a
7 policy file associated with the web application, and
8 modifying a class path for the web application to include
9 paths to each of the at least one shared web modules.

1 11. A computer program product in a computer readable
2 medium for generating a logically merged web module for a
3 web application, comprising:
4 first instructions for determining if the web
5 application includes a reference to at least one shared
6 web module that may be incorporated into a plurality of
7 web applications;
8 second instructions for identifying a location of
9 the at least one shared web module; and
10 third instructions for logically merging the at
11 least one shared web module with web modules of the web
12 application, if any, to generate a logically merged web
13 application.

1 12. The computer program product of claim 11, further
2 comprising:
3 fourth instructions for loading the logically merged
4 web application into a web container.

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1 13. The computer program product of claim 11, wherein
2 the first instructions for determining if the web
3 application includes a reference to at least one shared
4 web module include instructions for determining if the
5 web application includes a shared web module designation
6 file.

1 14. The computer program product of claim 11, wherein
2 the third instructions for logically merging the at least
3 one shared web module with web modules of the web
4 application include:
5 instructions for determining a priority associated
6 with the at least one shared web module; and
7 instructions for resolving any conflicts between
8 shared web modules in the at least one shared web module
9 and conflicts between the at least one shared web module
10 and web modules of the web application, if any.

1 15. The computer program product of claim 11, wherein
2 the first, second and third instructions are executed
3 during an initialization process of a runtime environment
4 for initializing the web application to be run on a
5 server.

1 16. The computer program product of claim 11, wherein
2 the third instructions for logically merging the at least
3 one shared web module with the web modules of the web
4 application include instructions for using a service
5 provider interface (SPI) that provides merge logic for
6 merging different module resources.

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1 17. The computer program product of claim 12, wherein
2 the container uses one or more application program
3 interfaces (APIs) to identify a path to the at least one
4 shared web module.

1 18. The computer program product of claim 11, wherein
2 the third instructions for logically merging the at least
3 one shared web module with web modules of the web
4 application include at least one of instructions for
5 relinking references to the at least one shared web
6 module in the web modules of the web application,
7 instructions for extrapolating policy information for the
8 at least one shared web module from a policy file
9 associated with the web application, and instructions for
10 modifying a class path for the web application to include
11 paths to each of the at least one shared web modules.

1 19. An apparatus for generating a logically merged web
2 module for a web application, comprising:
3 means for determining if the web application
4 includes a reference to at least one shared web module
5 that may be incorporated into a plurality of web
6 applications;
7 means for identifying a location of the at least one
8 shared web module; and
9 means for logically merging the at least one shared
10 web module with web modules of the web application, if
11 any, to generate a logically merged web application.

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- 1 20. The computer program product of claim 19, further
- 2 comprising:
- 3 means for loading the logically merged web
- 4 application into a web container.